

IN THE CLAIMS:

The status of each claim that has been introduced in the above-referenced application is reproduced below, in the ensuing listing of the claims. This claim listing replaces all prior listings of the claims.

1. (Currently amended) A semiconductor processing assembly, comprising:  
a reaction chamber configured to house at least one semiconductor substrate;  
a heater located at least partially within said reaction chamber;  
at least one temperature sensor configured to sense a temperature and transmit a signal in response to a sensed temperature; and  
a temperature regulator in communication with said heater and said at least one temperature sensor and configured to vary a thermal output of said heater and a temperature of at least a portion of said at least one semiconductor substrate responsive to said signal.
2. (Original) The semiconductor processing assembly of claim 1, comprising a plurality of temperature sensors for sensing temperatures at a corresponding plurality of locations.
3. (Previously presented) The semiconductor processing assembly of claim 1, wherein said at least one temperature sensor is configured to sense a temperature within said reaction chamber.
4. (Previously presented) The semiconductor processing assembly of claim 1, wherein said at least one temperature sensor is configured to sense a temperature of at least an area of said at least one semiconductor substrate.
5. (Original) The semiconductor processing assembly of claim 1, wherein said temperature regulator is configured to vary said thermal output of said heater over a span of time.

6. (Original) The semiconductor processing assembly of claim 1, wherein said reaction chamber comprises at least one of a hot wall furnace and a cold wall furnace.

7. (Original) The semiconductor processing assembly of claim 1, wherein said reaction chamber comprises at least one of a vertical furnace and a horizontal furnace.

8. (Original) The semiconductor processing assembly of claim 1, wherein said reaction chamber is configured to house only a single semiconductor substrate at a time.

9. (Original) The semiconductor processing assembly of claim 1, wherein said reaction chamber comprises a plasma enhanced chamber.

10. (Original) The semiconductor processing assembly of claim 1, wherein said reaction chamber comprises at least one of a high-pressure chamber, a low-pressure chamber, and an atmospheric-pressure chamber.

11. (Original) The semiconductor processing assembly of claim 1, wherein said reaction chamber comprises at least one of a furnace and a rapid thermal processing chamber.

12. (Original) The semiconductor processing assembly of claim 1, further comprising a rotator within said reaction chamber.

13. (Previously presented) The semiconductor processing assembly of claim 12, wherein said rotator is configured to rotate said at least one semiconductor substrate.

14. (Currently amended) A supplement to a fabrication chamber configured to perform a deposition process on a substrate, said supplement comprising: a variable substrate temperature generation system configured to operate in cooperation with initiation of said deposition process, said variable substrate temperature generation system comprising a feedback control system in communication with at least one temperature sensor and a heating element of said fabrication chamber, said feedback control system configured to cause said heating element of said fabrication chamber to alter a thermal output within said fabrication chamber and a temperature of at least a portion of the substrate in response to transmission of a signal from said at least one temperature sensor.

15. (Original) The supplement of claim 14, wherein said feedback control system is configured to receive said signal and to alter power provided to said heating element in response to said signal.

16-21. (Canceled)